



Data Sheet

### IC CONTROLLER DUAL 48QFM

Manufacturers Renesas Technology Corp

Package/Case QFN-48

Product Type Power Management ICs

**RoHS** 

Lifecycle



Images are for reference only

Please submit RFQ for ISL6377HRZ-T or Email to us: sales@ovaga.com We will contact you in 12 hours.

**RFO** 

# **General Description**

The ISL6377 is fully compliant with AMD Fusion<sup>TM</sup> SVI 2.0 and provides a complete solution for microprocessor and graphics processor core power. The ISL6377 controller supports two Voltage Regulators (VRs) with three integrated gate drivers and three optional external drivers for maximum flexibility. The Core VR can be configured for 4-, 3-, 2-, or 1-phase operation while the Northbridge VR supports 2- or 1-phase configurations. The two VRs share a serial control bus to communicate with the AMD CPU and achieve lower cost and smaller board area compared with two-chip solutions. The PWM modulator is based on Intersil's Robust Ripple Regulator R3<sup>TM</sup> technology. Compared to traditional modulators, the R3 modulator can automatically change switching frequency for faster transient settling time during load transients and improved light-load efficiency. The ISL6377 has several other key features. Both outputs support DCR current sensing with single NTC thermistor for DCR temperature compensation or accurate resistor current sensing. Both outputs utilize remote voltage sense, adjustable switching frequency, OC protection and power-good.

## **Features**

Supports AMD SVI 2.0 serial data bus interface Serial VID clock frequency range 100kHz to 25MHz Dual output controller with integrated drivers Two dedicated core drivers One programmable driver for either core or Northbridge Precision voltage regulation 0.5% system accuracy over-temperature 0.5V to 1.55V in 6.25mV steps Enhanced load line accuracy Supports multiple current sensing methods Lossless inductor DCR current sensing Precision resistor current sensing Programmable 1-, 2-, 3- or 4-phase for the core output and 1- or 2-phase for the Northbridge output Adaptive body diode conduction time reduction Superior noise immunity and transient response Output current and voltage telemetry Differential remote voltage sensing High efficiency across entire load range Programmable slew rate Programmable VID offset and droop on both outputs Programmable switching frequency for both outputs Excellent dynamic current balance between phases Protection: OCP/WOC, OVP, PGOOD and thermal monitor Small footprint 48 Ld 6x6 QFN package Pb-free (RoHS compliant)





#### **Related Products**



**ISL6262ACRZ** 

Renesas Technology Corp QFN-48



## ISL21080CIH315Z-TK

Renesas Technology Corp SOT-23-3



ISL6294IRZ-T

Renesas Technology Corp QFN-8



### ISL6506BCBZ

Renesas Technology Corp SOP-8



ISL62771HRTZ-T

Renesas Technology Corp 40-WFQFN Exposed Pad



ISL62771HRTZ
Renesas Technology Corp
QFN40



ISL95808HRZ-T

Renesas Technology Corp DFN-8



ISL6625ACRZ-T

Renesas Technology Corp 8pin-DFN